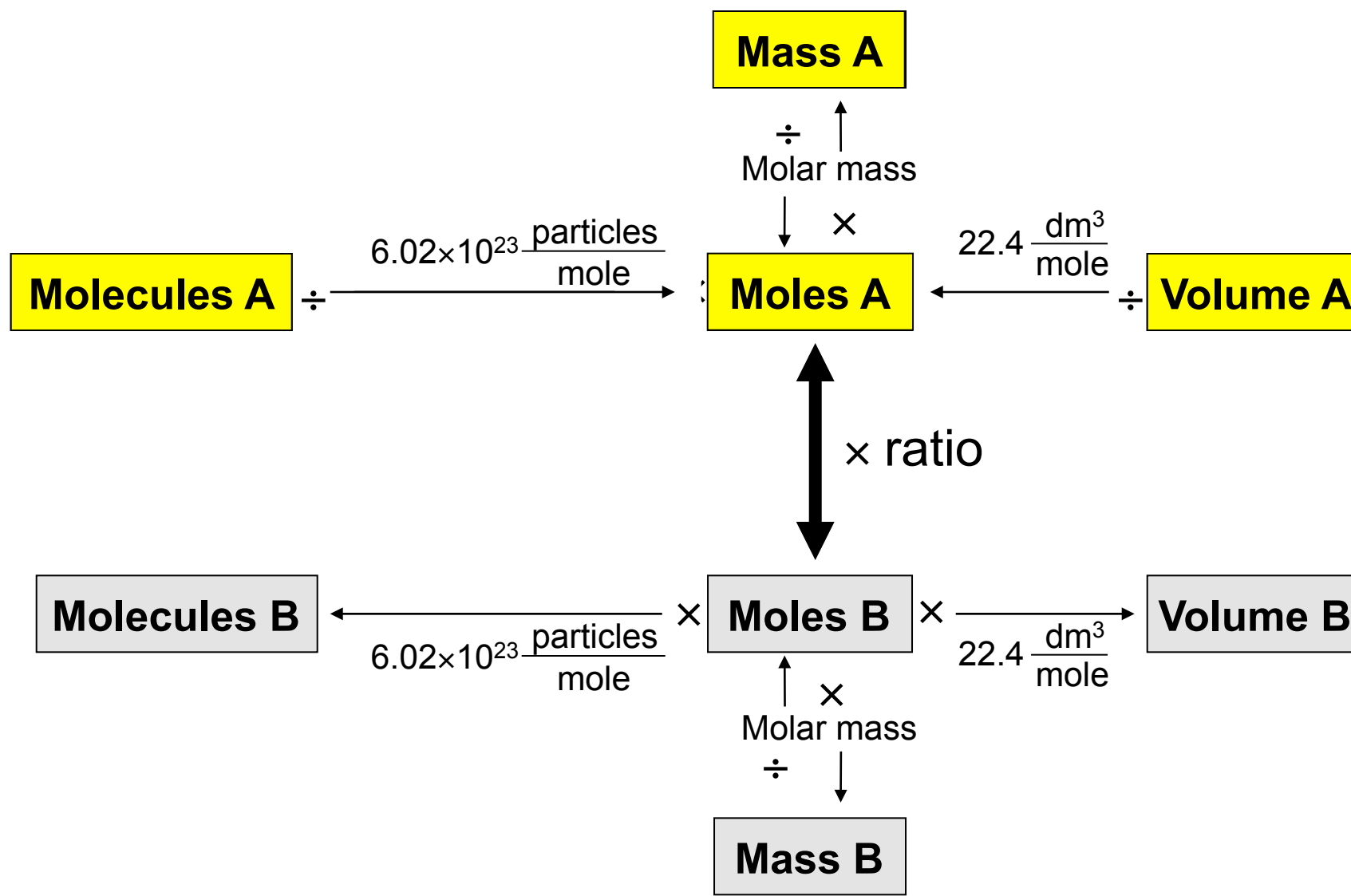


Stoichiometry

A yellow heart shape with a black outline, centered on the page. The word "Moles" is written in black text inside the heart.

Moles

The Mole Highway



Example

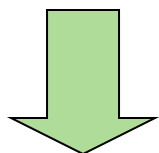


Starting with 44.1 g C_3H_8 , how many grams of O_2 will you end up with?

Mass A



Moles A



Moles B



Mass B

$$\frac{44.1 \text{ g } \text{C}_3\text{H}_8}{1 \text{ mol } \text{C}_3\text{H}_8} \times \frac{1 \text{ mol } \text{C}_3\text{H}_8}{44.09 \text{ g } \text{C}_3\text{H}_8} = 1.00 \text{ mol } \text{C}_3\text{H}_8$$

$$\frac{1 \text{ mol } \text{C}_3\text{H}_8}{1 \text{ mol } \text{C}_3\text{H}_8} \times \frac{5 \text{ mol } \text{O}_2}{1 \text{ mol } \text{C}_3\text{H}_8} = 5.00 \text{ mol } \text{O}_2$$

$$\frac{5 \text{ mol } \text{O}_2}{1 \text{ mol } \text{O}_2} \times \frac{32 \text{ g } \text{O}_2}{1 \text{ mol } \text{O}_2} = \mathbf{160 \text{ g } \text{O}_2}$$